

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 2004/001178

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7: H01Q 11/10, H01Q 21/30, H01Q 19/10

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: H01Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3696437 A (RONALD D. GRANT), 3 October 1972 (03.10.1972), column 1, line 5 - line 9; column 2, line 21 - line 26; column 4, line 1 - line 2, column 4, line 44 - line 45	1-2,4,6-8, 15-18
Y	--	31-32
X	US 6362796 B1 (WALTER BOHLMAN), 26 March 2002 (26.03.2002), column 1, line 14 - line 17; column 1, line 23 - line 28; column 2, line 18 - line 22, column 2, line 38 - line 42; column 2, line 55 - line 57; column 3, line 16 - line 39; figures 1-2	1,3-6,8-9, 11,13,15-23, 29
Y	--	10,14

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

\* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

6 October 2004

Date of mailing of the international search report

15-10-2004

Name and mailing address of the ISA/  
Swedish Patent Office  
Box 5055, S-102 42 STOCKHOLM  
Facsimile No. +46 8 666 02 86

Authorized officer

Marianne Dickman/ELY  
Telephone No. +46 8 782 25 00

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/SE 2004/001178

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5093670 A (RUSSELL BRAATHEN), 3 March 1992 (03.03.1992), column 4, line 6 - line 33, figures 2-4	1-2,5,8-9, 11,13,16-18, 23-28
Y	--	12
Y	US 3079602 A (R.H. DU HAMEL ET AL), 26 February 1963 (26.02.1963), column 1, line 63 - line 65; column 2, line 51 - line 53; column 5, line 3 - line 19, figures 3-4	10
Y	--	
Y	GB 983447 A (THE MARCONI COMPANY LIMITED), 17 February 1965 (17.02.1965), page 3, line 117 - page 4, line 10; page 2, line 29 - line 35, figures 1,4	14
A	page 3, line 26 - line 66, figures 1-2	29
X	--	
X	US 5274390 A (JAMES K. BREAKALL), 28 December 1993 (28.12.1993), column 2, line 28 - line 45; column 6, line 17 - line 20	1
A	--	19-22
Y	US 3543277 A (J.C. PULLARA), 24 November 1970 (24.11.1970), column 1, line 12 - line 20; column 4, line 47 - line 64, figures 1-2	12
Y	--	
Y	P.S. EXCELL et al: "Log-periodic antenna for pulsed radiation" Electronics Letters 15th October 1998, Vol. 34, No. 21, p.1-2, figure 3	31-32
A	--	
A	US 3286268 A (N. BARBANO), 15 November 1966 (15.11.1966), column 2, line 24 - column 3, line 65, figure 1	23-30
	--	

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/SE 2004/001178

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>DE 8104760 U1 (FTE MAXIMAL FERNSEHTECHNIK UND ELEKTROMECHANIK GMBH &amp; CO KG), 10 Sept 1981 (10.09.1981), page 10, figure 2</p> <p>-- -----</p>	29

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

03/09/2004

International application No.

PCT/SE 2004/001178

US	3696437	A	03/10/1972	NONE		
US	6362796	B1	26/03/2002	NONE		
US	5093670	A	03/03/1992	CA	2047113 A	18/01/1992
US	3079602	A	26/02/1963	GB	875293 A	16/08/1961
GB	983447	A	17/02/1965	FR	1331664 A	05/07/1963
US	5274390	A	28/12/1993	NONE		
US	3543277	A	24/11/1970	NONE		
US	3286268	A	15/11/1966	NONE		
DE	8104760	U1	10/09/1981	NONE		